Thursday, April 22, 2004

12.00 – 14.30 **Arrival and Registration**

14.30 – 14.35 **Welcome:** Helmut Kettenmann

14.35 – 15.35 **Lecture I**
Chair: Uwe Heinemann

Graham L. Collingridge
Department of Anatomy, University of Bristol, USA
Glutamate receptors and synaptic plasticity in the hippocampus

15.35 – 17.35 **Poster Session I and Coffee Break**

17.35 – 19.35 **Welcome to Berlin Session**
Chair: Werner Sommer

Georg Juckel
Department of Psychiatry and ERIC, Charité, Campus Mitte, Berlin
Neurobiology of the early course of schizophrenia

Arthur M. Jacobs
Department of Psychology, Free University Berlin
Electrophysiological and neuroanatomical correlates of "unknown" responses

Volker Haucke
Institute of Chemistry-Biochemistry, Free University Berlin
Regulatory mechanisms in clathrin-mediated endocytosis at synapses

Gerd Multhaup
Institute of Chemistry/Biochemistry, Free University Berlin
The amyloid precursor protein of Alzheimer's disease: function and metabolism

Sonja Grün
Neurobiology, Free University Berlin
Analysis and identification of cortical network dynamics

Josef Köhrle
Experimental Neuroendocrinology, Charité, Berlin
Thyroid hormones, selenium and the brain

19:45 – 20.30 **Dinner and Informal Get-together**

Friday, April 23, 2004

8.00 – 9.00 **Breakfast**

9.00 – 10.00 **Lecture II**
Chair: Andreas Herz

Idan Segev
Department of Neurobiology and Interdisciplinary Center for Neurological Computation, The Hebrew University, Jerusalem, Israel
The plastic game, synapses and dendrites play together

10.00 – 12.000 **Poster Session II and Coffee Break**

12.00 – 13.00 **Young Investigator Presentations Session I**
Chair: Ulrich Dirnagl

Orhan Aktas
Institute of Neuroimmunology, Charité, Berlin
Impact of T cells on neurons as potential damage mechanism in Multiple Sclerosis

Jens Dreier
Neurology, Charité Berlin
Initiation of spreading depression or spreading ischemia by K^+ is related to a down-regulation of Na, K-ATPase activity in rats

Alistair Garratt
Max Delbrück Center for Molecular Medicine, Berlin-Buch
Functions of Neuregulin-1/ErbB signalling in the maintenance of adult neurogenesis

Rainer Glass
Max Delbrück Centre for Molecular Medicine, Berlin-Buch
Cellular plasticity and anti-tumor effects of endogenous neural precursors responding to glioblastomas

13.00 - 14.00 **Lunch**

14.00 - 18.00 **Exkursion**

18.00 - 19.00 **Lecture III**
Chair: Gerd Kempermann

Wieland B. Huttner
Max Planck Institute of Molecular Cell Biology and Genetics, Dresden
Cell biology of neuroepithelial cells and the control of neurogenesis

19.00 - 20.00 **Dinner**

20.00 – 21.00 **Lecture IV**
Chair: Randolf Menzel

James W. Truman
Department of Biology, University of Washington, Seattle, USA
Genetic dissection of a neuromodulatory cascade underlying a complex behavioral sequence

Saturday, April 24, 2004

8.00 – 9.00 **Breakfast**

9.00 - 10.00 **Young Investigator Presentations Session II**
Chair: Gabriel Curio

Frank Marzinzik
Neurology, Charité, Berlin
Cognitive function of the human thalamus in a Go/NoGo motor task

Ingrid Pahner
Institute of Cell Biology and Neurobiology, Center for Anatomy, Charité, Berlin
Heterotrimeric G proteins on secretory vesicles - implications for regulation of transmitter uptake

Stefan Schumacher
Institute of Cell Biology and Neurobiology, Center for Anatomy, Charité, Berlin
Molecular and cellular analysis of the neural EGF-family protein Caleb

Albrecht Stroh
Institute of Radiology, Charité, Berlin
MR-Imaging of stem cell transplantation in experimental models of CNS diseases

10.00 - 10.15 **Coffee Break**

10.15 - 11.30 **Young Investigator Presentations Session III**
Chair: Robert Nitsch

Birgit Stürmer
Institute of Psychology, Humboldt-University Berlin
The role of the posterior parietal cortex and dorsolateral prefrontal cortex in controlling response priming and conflict

Björn Brembs
Department of Neurobiology and Anatomy, The University of Texas, USA
Operant conditioning in *Aplysia*: Virtual food for snails

Paul Szyszka
Institute for Neurobiology, Free University, Berlin
Sparse coding and memory formation in a higher brain structure of the insect brain, the mushroom body

Tim Gollisch
Institute for Theoretical Biology, Humboldt University, Berlin
How to assess individual processing steps of sensory transduction in vivo

11.15 – 12.15 **Lecture V**
Chair: Arno Villringer

Arthur Toga
Laboratory of Neuro Imaging, UCLA School of Medicine, Los Angeles, USA
Digital brain atlases: Theory and results in health and disease

12.15 **Lunch and Departure**

List of Poster Presentations - Session I

1. THE ROLE OF NREM SLEEP FOR DECLARATIVE MEMORY CONSOLIDATION IN HEALTHY ELDERLY
Albrecht, N., Hornung, O. P., Regen, F., Danker-Hopfe, H., Schredl, M., Heuser, I.
Department of Psychiatry, Charité University Medicine Berlin, Campus Benjamin Franklin, Berlin

2. DIRECT MODULATION OF TRANSIENT POTASSIUM CURRENT BY INTRACELLULAR ARACHIDONIC ACID IN RAT CA1 AND ECLII PYRAMIDAL NEURONS
Angelova, P. R., Müller, W. S.
AG Molecular and Cell Physiology, Neuroscience Research Centrum, Charité, Humboldt University Berlin

3. ESTROGEN SUPPRESSED THE IMPACT OF HYPOGLYCEMIA ON ASTROCYTIC CALCIUM LEVELS AND SIGNALING IN A NON-GENOMIC WAY
Arnold, S., Kettenmann, H.
Cellular Neuroscience, MDC, Berlin

4. ROLE OF REGULATOR OF G-PROTEIN SIGNALLING PROTEIN 5 IN TIGHT JUNCTIONS
Bal, M. S., Piontek, J., Winkler, L., Lippoldt, A., Blasig, I. E.
Signal transduction, Forschungsinstitut für Molekulare Pharmacology, Berlin-Buch

5. CXCR3 IS INVOLVED IN GLIA-ACTIVATION DURING SCRAPIE PATHOGENESIS
Bamme, T., Riemer, C., Schultz, J., Schwarz, A ., Burwinkel, M., Schwarz, T., Baier, M.
Neurodegenerative Erkrankungen, Robert Koch-Institut, Berlin

6. ACOUSTIC RECEPTIVE FIELDS IN VIRTUAL SPACE AND FREE FIELD: 1ST SPIKE LATENCY AND SPIKE COUNT IN THE GUINEA PIG MIDBRAIN
Behrend, O., Clarke, E., Dickson, B., Carlile, S.
Institute of Biology, Humboldt University Berlin

7. SHARP WAVE RIPPLE-COMPLEXES INDUCED BY TETANIC STIMULATION IN HIPPOCAMPUS OF ADULT RAT IN VITRO
Behrens, C. J. , van den Boom, L. , Friedmann, A., Heinemann, U.
Department of Neurophysiology, Johannes-Mueller-Institute of Physiology, Berlin

8. VOLUNTARY EXERCISE INDUCED INCREASE IN NEUROGENESIS IN THE ADULT MURINE DENTATE GYRUS IS MAINTAINED IN AGED MICE AND AFTER PROLONGED RUNNING
Bick-Sander, A., Kempermann, G.
AG Kempermann and Department of Neurology, MDC and Charité, Berlin

9. NEURONAL CALCIUM SENSOR (NCS) PROTEIN VILIP-1 MODULATES cGMP SIGNALLING BY REGULATING RECEPTOR GUANYLYL CYCLASE B PHOSPHORYLATION, CELL SURFACE EXPRESSION AND ACTIVITY IN NEURAL CELLS AND HIPPOCAMPAL NEURONS
Brackmann, M., Anand, R., Braunewell, K.-H.
Signaltransduction Research Group, Neuroscience Research Center of the Charité, Berlin

10. IDENTIFICATION AND CLASSIFICATION OF A NOVEL GENE FAMILY IN HUMANS AND OTHER VERTEBRATES HOMOLOGOUS TO PRG-1
Bräuer, A. U., Savaskan, N. E., Nitsch, R.
Institute of Cell Biology and Neurobiology, Center for Anatomy, Berlin

11. TRANSIENT CALRETININ EXPRESSION DEFINES EARLY POSTMITOTIC STEP OF NEURONAL DIFFERENTIATION IN ADULT HIPPOCAMPAL NEUROGENESIS OF MICE
Brandt, M. D., Jessberger, S., Steiner, B., Kronenberg, G., Reuter, K., Bick-Sander, A., von der Behrens, W., Kempermann, G.
AG Neuronal Stem Cells, Max Delbrueck Center for Molecular Medicine, Berlin